



Centers for Disease Control
and Prevention (CDC)
Atlanta GA 30333

TB Notes
No. 3, 1999

Dear Colleague:

I hope this issue of *TB Notes* finds you in good health and enjoying the fall season. We had a very busy summer owing to the many projects we have taken on and to the meetings and conferences attended by staff of the Division of TB Elimination (DTBE). Among these meetings was the 30th IUATLD World Conference on Lung Health, held in Madrid, Spain, September 13-18. The Division was represented by over 30 poster and oral presentations at that conference. Staff also actively participated in this conference by sponsoring several special workshops, including postgraduate courses and a late-breaker session. At the request of the World Health Organization (WHO), CDC also sponsored an African regional meeting, as part of the ongoing "Stop TB" Initiative country consultations.

The applications for cooperative agreements for the year 2000 have all been received, allowing TB program staff to return to their regular TB prevention and control activities, while program consultants and other project officers busy themselves with reviewing the applications.

As we recently announced, next year's National TB Controllers' 2000 Workshop will be held August 30 through September 1, 2000, in Atlanta at the Omni Hotel, CNN Center. We are collaborating with Carol Pozsik, National TB Controller's Association President (NTCA), and Walter Page, NTCA Executive Director, on the plans for next year's meeting. To guide the planning process, we used the results of the NTCA survey on national meetings, and concluded that next year's meeting will be kept separate from other organization meetings. Please hold these dates on your calendar, and ask the same of your nurse consultants and program managers who are likely to attend the 2000 Workshop next year. Current plans include conducting the separate and official NTCA annual membership meeting early on the afternoon of September 1; scheduling other special TB-related meetings (i.e., training, research, surveillance, etc.) on the morning of August 30; and conducting the DTBE Field Staff meeting on August 29. The planning committee will be working closely with Carol Pozsik and the NTCA in developing the details of the agenda. Further information will be provided as plans for this workshop continue to develop.

The 1998 U.S. tuberculosis statistics were published in an article in the *Morbidity and Mortality Weekly Report (MMWR)* of August 27, 1999, entitled "Progress toward the elimination of tuberculosis—United States, 1998." The citation for the article is *MMWR* 1999;48(33):732-736. In summary, 18,361 U.S. TB cases were reported for 1998,

an 8% decline from the 19,851 cases reported in 1997, and a 31% decrease since 1993. We can all share in the credit for this overall 6-year decline. However, the national TB trends also point to a number of remaining challenges. Among these is the impact of the global TB epidemic on the United States. Also, while multidrug-resistant TB (MDR TB) cases have decreased, patient movement has resulted in MDR TB being reported from 45 states between 1993 and 1998. We must also improve the collection of information about HIV infection in TB patients. Matched TB and AIDS case registry studies suggest that at least 21% of persons aged 25 to 44 with TB also had HIV coinfection. Knowing the HIV status of TB patients is critical in order to accurately monitor the contribution of TB/HIV coinfection and provide the specialized clinical services essential to the care of these patients.

We now have the challenge of not only maintaining this downward trend, but of moving toward TB elimination as well. As I related in my last letter to you in *TB Notes* No. 2, 1999, CDC and the Advisory Council for the Elimination of Tuberculosis (ACET) have been working on a revision of the 1989 document, *A Strategic Plan for the Elimination of Tuberculosis from the United States*. This important document was published on August 13 as an article in the *MMWR* Recommendations and Reports series, entitled "Tuberculosis elimination revisited: obstacles, opportunities, and a renewed commitment." Advisory Council for the Elimination of Tuberculosis (ACET). *MMWR* 1999;48(No. RR-9).

This issue is shorter than usual because we are in the midst of planning and developing a special issue that we are calling *TB Notes 2000*, into which we are putting more effort and time than the regularly scheduled issues require. We expect to provide an overview of the history of the effect of TB on mankind; to describe the historical and current role of the DTBE; to offer articles on a wide array of TB control areas by experts outside CDC; and to provide order forms and samples of a variety of TB control education materials. Look for this special issue some time in January.

Kenneth G. Castro, MD

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Number 3, 1999

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HIGHLIGHTS FROM STATE AND LOCAL PROGRAMS

Survey of Local TB Case Registry Practices and Capacities in California

Introduction

The tuberculosis (TB) surveillance system in the United States can provide a wealth of information for public health officials to use in developing and evaluating TB prevention and control programs and policies. Before TB programs can utilize their surveillance data, such data must be accurately collected and the capacity to analyze the data must exist. Although the TB Control Branch of the California Department of Health Services has the ultimate responsibility in California for collecting and reporting quality TB data to CDC, it relies on local health departments to actually collect the data. In turn, the TB Control Branch has been encouraging local health departments to analyze and use their data for program planning and evaluation. To better assist local health departments in their collection and use of surveillance data, the TB Control Branch undertook a survey of practices and capacities of local TB registries in the state.

Methods

In June–September 1998, staff from the TB Control Branch visited the 19 largest local health departments (out of 61 local health departments) in California to review their

TB case registry practices. These local health departments reported 92% of the state's cases in 1998. Using a standardized survey, relevant staff in each local health department were interviewed in person. The survey covered staffing for key TB registry functions, reporting policies, databases, and data analysis.

Results

Reporting of TB data

Staffing. With regard to staffing for activities such as confirmation of TB cases, completion of the Report of Verified Case of TB (RVCT), data entry into TIMS, and quality control of RVCT data, 15 local health departments (79%) reported that, in the past 2 years, there was staff turnover in one or more of these areas. Seven local health departments (37%) had a vacancy in one or more of these positions at the time of the survey.

Quality control of TB data. Sixteen local health departments (84%) performed some quality control check on each RVCT before submission to the TB Control Branch. This was most commonly performed by the Program Manager or Public Health Nurse (eight sites), followed by clerical staff (six sites), epidemiologist (two sites), and TB Controller (one site); one local health department had two staff performing quality control checks. Fifteen sites (79%) checked for internal consistency and missing data, 11 (58%) compared the RVCT to medical records, and four (21%)

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reviewed the "Facsimile" RVCT printout from SURVS/TIMS.

Selected problematic issues in reporting

In the assessment of reporting policies, we found inconsistencies in the way local programs reported on certain issues. We provide four examples of the more problematic issues below.

Directly observed therapy (DOT). Eight local programs (42%) report a patient to be on "DOT only" if *most* doses of therapy are observed; 13 (68%) consider TB patients to be on DOT when they are hospitalized; 16 (84%) consider all incarcerated TB patients to be on DOT.

Healthcare provider type. When the health department is providing DOT to a "private" patient, nine programs (47%) report this patient as being cared for by the private provider only; but another nine (47%) would report this as receiving care from both the health department and private provider.

HIV testing of TB patients. In 1997, the TB Control Branch asked local health departments to collect information on whether HIV testing was offered to each TB patient. More than one year later, only nine local health departments (47%) have a written policy on HIV testing of TB patients. Six (32%) could not answer the question "Was HIV testing offered?" for all TB cases cared for by private providers.

Movement of TB cases. Patients who move during TB treatment require referral to ensure continuity of treatment in the new local health departments. Only five local health departments (26%) follow up on patients to confirm that they have arrived in the next local health departments. Only three (16%) schedule an appointment for patients in the destination local health departments.

Data analysis

Availability of epidemiological expertise. In seven local health departments (37%), the TB program had no access to an epidemiologist (defined by having at least a master's degree in epidemiology). Seven other sites (37%) shared an epidemiologist with other disease programs. Several epidemiologists reported that since their funding did not come from the TB program, analysis of TB data was not a priority for them. In three local health departments (16%) the epidemiologists had other major responsibilities such as being the Program Manager. Only two sites (13%) had a full-time TB epidemiologist. An epidemiologist

performed routine analysis of case data in only eight local health departments (42%).

Data systems and analysis. Aside from having SURVS-TB/TIMS, 15 local health departments (79%) also had their case data computerized in another database. Contacts to cases were computerized in only four local health departments (21%). Fifteen (79%) reported routinely analyzing their TB case data, but only one analyzed contact data for purposes other than the Program Management Report.

Discussion

The results of this survey have permitted the TB Control Branch to determine how we can better assist local health departments in their collection and use of surveillance data. The high turnover and vacancy rate in staff responsible for TB reporting means that local expertise in reporting is often lost. Both the timeliness and the quality of reporting frequently suffer whenever changes in TB registry staff occur. Our survey revealed problems in several reporting issues. Although guidelines clarifying many reporting issues have been disseminated in California, problems continue to occur, perhaps due in part to staff turnover.

Based on these results, the TB Control Branch is increasing the technical assistance to and training for local TB registry staff. We hope to establish closer communication with staff of local registries so that staffing changes and local problems can be quickly identified and more timely assistance provided. The TB Control Branch is in the process of providing local health departments with guidelines on reporting that will help to clarify national guidelines, e.g., administrative closure. In addition, we are distributing all current reporting guidelines and protocols in a

single binder; this will make it easier for local staff to refer to them when the need arises and for updating or adding guidelines.

The TB Control Branch has been encouraging local TB programs in California to analyze and use their own TB data. The Francis J. Curry National TB Center, in collaboration with the TB Control Branch, has developed a user-friendly software program (titled TB-Info) to analyze TIMS data. The TB Control Branch has distributed TB-Info to local programs with the hope that these programs can more easily analyze their own epidemiologic and treatment data. We found that most local health departments are analyzing their TB case data. However, only one routinely analyzes contact data for purposes other than meeting the current reporting requirement. One reason for this is that most local health departments do not have a computerized database on contacts. But a more important issue may be the lack of an available epidemiologist in most TB programs to perform the data analysis and help interpret the results.

To improve the use of contact data, more local health departments in California will need to establish a contact database. In addition, the TB Control Branch is working with local health departments to develop a standard methodology for evaluating contact investigations. This will be tied to the implementation of the new CDC Aggregate Reports on Program Evaluation. Finally, improving the local use of TB data will require the availability of an epidemiologist in local programs; specific funding should be provided for this purpose.

For more information, contact Janice L. Westenhouse, MPH, TB Registry

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—Reported by Janice L. Westenhouse, M.P.H.,
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Health Services

New Facility for Involuntary Confinement of Georgia TB Patients

In June 1995, Georgia closed the doors of its TB inpatient hospital, one of the few remaining TB sanatoriums in the United States. The closing of the 41-bed facility occurred for several reasons. The advances made in the treatment of TB have resulted in more patients being treated in outpatient settings. Consequently, the hospital admitted only a few patients annually. Maintaining a facility with an annual budget of over \$1 million was economically unfeasible, given the minimal need for this type of facility. In addition, the building was not a secured, locked facility; although patients were sent there under court order, many patients left against medical advice. Patients needing intensive medical care for adverse medical reactions or complications resulting from coinfection with HIV had to be transferred to other hospitals for medical care. Finally, most patients were there owing to homelessness or alcohol or drug abuse, but the hospital provided no interventions for these problems.

Since 1995, various alternatives have been developed to provide TB treatment to patients who were court ordered to receive care. A collaboration with the Georgia Chapter of the American Lung Association provides housing, meals, and directly observed therapy (DOT) to infectious TB

patients who are homeless or have unstable home environments. In addition, the Georgia TB Program collaborates with Antioch Urban Ministries, a local community-based organization, to provide similar services to noninfectious homeless patients. Additional sites utilized have included personal care homes, motels, and substance abuse facilities. However, none of these facilities provided a secured facility, and if patients were determined to leave, they could not be held. The need continued to exist for a secured facility for the hard-core, involuntarily committed TB patient who required a more structured environment to ensure completion of therapy.

During the Annual Southeastern TB Controllers' Conference of 1997, Carol Pozsik, RN, (TB Controller, South Carolina) briefed the Georgia TB Controller on a new privately managed prison hospital, Columbia Care Center, that was available to care for TB patients in the Southeast. In October 1998, a team from the Georgia TB Control Program met with Columbia Care Center's administration. The team toured the facility and discussed a possible arrangement to admit TB patients from Georgia. Several issues were of concern for the TB Program. Most important was the safety of Georgia's TB patients. These patients are detained under a civil court action; as such they are not criminals and should not have encounters with persons incarcerated on criminal charges. After discussions and assurances by the warden of Columbia Care Center, we were confident of the safety and treatment of Georgia's TB patients.

Columbia Care Center, located in Columbia, South Carolina, is a 326-bed, private prison hospital. The facility provides medical care and treatment for a variety of

conditions, including TB. The Columbia Care Center offers a cost-effective alternative to the traditional hospital setting, providing medical care and treatment to patients who have been involuntarily committed and require a secured facility to complete TB treatment. The basic rate for uncomplicated TB (e.g., HIV-seronegative, pansensitive) is \$135 per day. For dually infected patients, i.e., TB/HIV, the cost is \$250 per day. The facility has a complete medical staff including physicians, registered nurses, licensed practical nurses and certified nursing assistants, as well as correctional officers on each floor. The facility is equipped with 10 isolation rooms with negative air pressure in addition to rooms that will accommodate 2 or 4 individuals. All medications are administered by DOT. Bacteriology tests for patients admitted to the facility are processed at the South Carolina State Laboratory under a mutual agreement between Columbia Care physicians and the South Carolina TB Control Program.

Since January 1999, six patients from Georgia have been admitted to the facility. Four are still under care and one has completed treatment. One patient was transferred to an acute care hospital, due to complications from AIDS, and later died. The average cost per patient is \$141 per day.

How successful this collaboration will be has yet to be determined. What is known is that the cost per day is substantially less than at area acute care hospitals (approximately \$500 per day); the patients cannot leave the facility against medical advice, which ensures their completion of treatment; and patients are satisfied with the care they receive. The staff at Columbia Care Center demonstrate caring and concern for every patient. They provide

exceptional medical care in a safe and secure setting. The Columbia Care Center is available for admitting patients from across the Southeast.

Inquiries about the facility can be directed to Dr. Kevin McLaughlin at the Columbia Care Center at (803) 935-0505.

—Submitted by Beverly DeVoe, MSH
TB Program Manager
Georgia TB Control Program

Improving B1/B2 Tuberculosis Follow-up in New York State

Introduction

Foreign-born persons comprise an increasing proportion of TB cases in New York State. Final numbers for 1998 reveal 50% of all cases reported in New York State exclusive of New York City (the project area) were among individuals born outside of the United States. In both 1996 and 1997, 46% of the cases reported in the project area were in foreign-born persons. Traditional methods of community-based TB control efforts are becoming less effective, considering half of today's cases (i.e., recent, foreign-born arrivals) did not reside in the community 5 years ago. Therefore, newly arrived refugees and immigrants must become a priority for assessment, case identification, and prevention programs.

Immigrants and refugees are the only groups of foreign-born persons routinely required to have a TB screening prior to obtaining a visa to enter the United States. This screening is done as part of the Overseas Medical Examination, which is conducted by panel physicians to identify individuals with excludable medical conditions such as HIV infection, serious psychological disorders, and untreated communicable diseases such as leprosy,

sexually transmitted diseases, or TB.

Persons whose smears are found to be positive for acid-fast bacilli (AFB) are designated as having Class A TB, a condition that makes individuals inadmissible into the United States. These individuals have two options: (1) they may choose to successfully complete a recommended course of therapy overseas with documented smear negativity at the end of treatment, after which they are reclassified as having old, healed TB (Class B2), or (2) they may elect to be treated overseas until their smears become negative, and apply for a waiver that will permit immigration, with therapy to be completed here. For an individual to receive a waiver, a document must be signed by a U.S. health care provider and countersigned by the appropriate local health department official (or signed only by the local health department official if he or she is the provider) in the individual's intended U.S. destination, thus ensuring that the provider will assume responsibility for the completion of TB treatment after arrival. Persons with Class B1 TB (suspect active TB, smear negative) or Class B2 TB (suspect TB, inactive, smears not required) are allowed to immigrate with no restrictions. At the port of entry, the Division of Quarantine generates a CDC 75.17 form, "Notice of Arrival of Alien with Tuberculosis" for these individuals. This form identifies a new arrival as someone with Class B1/B2 TB. The CDC 75.17 form has two sections: one for the state health department, and one for the local health department. Both sections are sent to the state health department, which in turn forwards the appropriate part to the local jurisdiction. Class B1/B2 arrivals are requested to have a follow-up evaluation within 30 days of entry. The date by which the examination should be done is in bold

print on each portion of the CDC 75.17 form. There are six questions on the form relative to the patient evaluation: (1) U.S. smear results; (2) U.S. x-ray results; (3) x-ray results (overseas); (4) U.S. presumptive diagnosis; (5) previous chemotherapy or prophylaxis; and (6) prescription of chemotherapy or prophylaxis as a result of this exam.

After completing the form, the local health authority returns it to the state health department to be forwarded to the Division of Quarantine. If the individual does not report for an evaluation, that information is also sent to Division of Quarantine via the state health department.

Background

Persons with Class B1/B2 TB are a high priority for follow-up because of the significant number in this group who subsequently progress to and are reported with active TB disease. Studies have shown 10%-14% of B1 arrivals and 2%-3% of B2 arrivals were later diagnosed with active TB. Project area data from 1994 show 323 notifications of Class B1/B2 arrivals settling in New York State (exclusive of New York City). Of the 323 notifications, county health departments returned 217 (68%) CDC 75.17 forms to the state health department. A TB evaluation was completed on 138 individuals, or 43% of the known B1/B2 arrivals. Active TB was identified in 4 of the 103 B1 arrivals and in 2 of the 220 B2 arrivals, a yield of 4% and 1%, respectively. In early 1995, a match between the TB registry and the B1/B2 arrivals over the 3-year period 1992-1994 identified 29 reported TB cases among the 934 B1/B2 arrivals in that period. Of these 29 cases, 11 (38%) were identified on the CDC 75.17 form with active TB during their initial evaluation, 7 (24%) were presumptively

diagnosed with inactive TB, 1 (3%) was reported to not have TB, and 10 (35%) were never evaluated. Active disease was reported in 25 of the 29 within 6 months of arrival in the United States.

Methods

Given the relatively high proportion of active TB cases identified in the population classified as B1/B2, and the low proportion of the B1/B2 group receiving an evaluation in the project area, the New York State Department of Health Bureau of Tuberculosis Control (BTBC) launched a project in 1995 to assist counties in evaluating B1/B2 arrivals. BTBC staff met with county health department staff to discuss the increased risk of TB in this group and the importance of providing TB assessment and follow-up care. At the same time, protocols for TB evaluation were distributed.

Regional BTBC staff began monitoring and assisting the county health departments in efforts to improve follow-up. A training program was developed which included a TB program assessment, instructions on completing the CDC 75.17 form, TB evaluation protocols, and sputum analysis protocols. Each county with a Class B1/B2 arrival was visited by a BTBC staff person. An open-ended, structured interview was conducted with county staff to determine the evaluation strategy employed in each locale. Questions of interest included how the B1/B2 population (refugees, immigrants, or both) was identified and what protocols were utilized by each county to complete and return the CDC 75.17 form to BTBC. Bureau staff analyzed the results, identified areas for improvement, made suggestions and modifications, and worked directly with the county health departments over subsequent years.

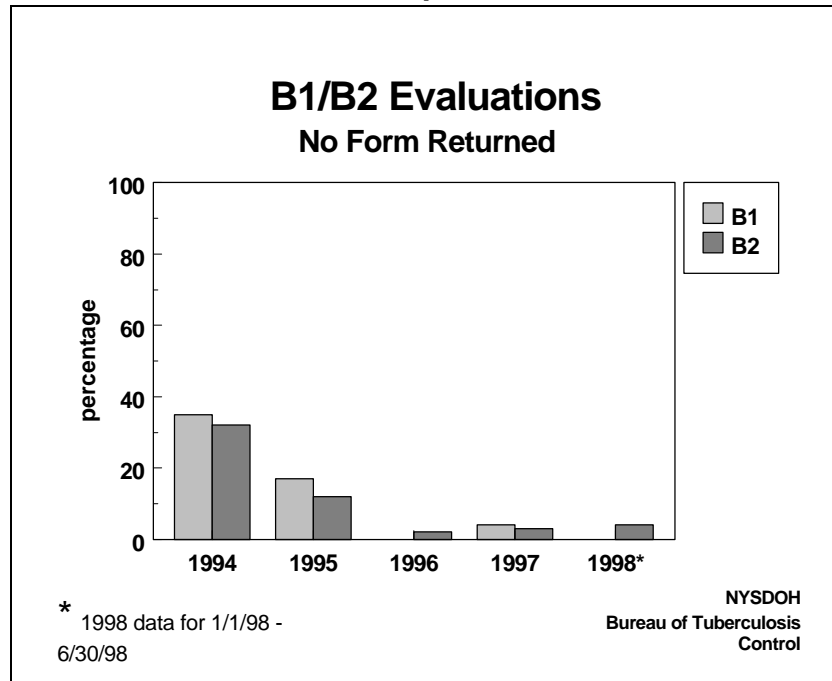
Results

State and county staff identified a number of key problem areas: (1) lack of staff to provide direct outreach to locate persons and get them in for evaluations; (2) lack of communication among various service providers within counties; (3) incomplete TB evaluation procedures; (4) language and cultural barriers; and (5) misunderstandings about paperwork and time frame requirements. Solutions developed jointly by BTBC staff and county staff included interventions such as (1) BTBC field visits at the county's request to locate patients; (2) meetings between local health department staff and other service providers to improve communication, referrals, and feedback; (3) the education of county health department staff about evaluation guidelines and time lines; and (4) the creation of log books to track arrivals and each individual's progress through the TB evaluation process.

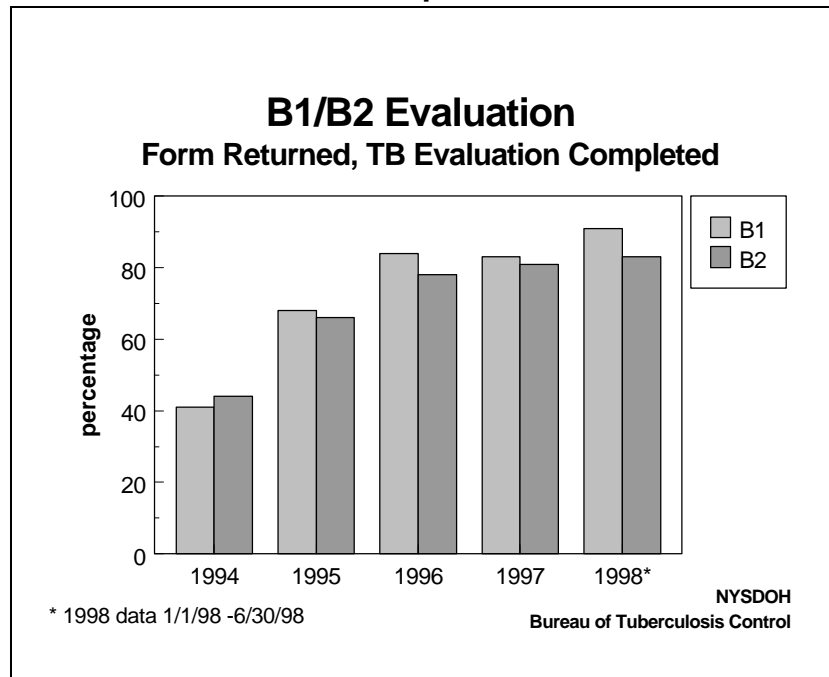
Graph 1 shows the proportion of B1/B2 arrivals for whom the CDC 75.17 form was not returned by the county health department. Prior to implementation of the intensive follow-up initiative in 1995, almost 40% of the forms were not returned to the State. Since 1996, forms have been returned for more than 95% of the notified arrivals. Graph 2 demonstrates that the percentage of returned forms documenting a completed TB evaluation has also increased steadily since 1995.

Table I shows the number of B1/B2 arrivals by year and the number of active TB cases detected as the result of county health department follow-up. Prior to project implementation, 1.85% of the total number of B1/B2 arrivals were found to have active TB on evaluation. In the years 1995 through 1997, 841 persons with Class B1 or B2 TB settled in the project area.

Graph 1



Graph 2



Over 80% had a TB screening and 40 active cases of TB were identified, nearly 5% of the B1/B2 arrivals.

Conclusions

With almost 5 of every 100 B1/B2 arrivals found to have TB disease during their initial evaluation, it is evident that within this high-risk population, targeted screening of a comparatively small population can be an effective public health intervention.

Continued success requires the combined vigilance of federal, state, and local health authorities. Prompt notification of arrivals coupled with quick, comprehensive follow-up and treatment can lead to reduced periods of infectivity due to quick case finding, a decrease in the number of infections transmitted, and the identification of potential candidates for preventive therapy.

—Reported by John Grabau, PhD, MPH,
Noelle Howland, RN, MS, Colleen Flynn, RN, BSN
Bureau of TB Control, NY State Dept of Health

Table 1
Number of Active TB Cases Detected Among B1/B2 Arrivals
1994 - 1997

Year	B1/B2 Arrivals (N)	Active TB Cases (n) (%)	
1994	323	6	(1.85)
1995	281	15	(5.33)
1996	302	15	(4.97)
1997	258	10	(3.88)
Total (1995-1997)	841	40	(4.76)

NURSING UPDATES

IUATLD Section of Nursing and Allied Professionals

The IUATLD Section of Nursing and Allied Professionals is one of the seven scientific sections of the International Union Against TB and Lung Disease (IUATLD). It was established in 1994 as part of an effort to extend the membership of the IUATLD to nurses and other allied professionals working in the field of TB and other lung diseases. The active participation and encouragement of the TB nurses from the Netherlands in the European regional meetings was especially influential in the formation of the section.

The objectives of the section are to

- establish a forum for sharing common issues and expertise within the structure of the IUATLD,
- establish an avenue to share protocols and educational materials,
- provide an opportunity for nurses and allied professionals working in TB or other lung diseases to attend regional and international TB conferences,
- provide an opportunity for these professionals to participate in operational research and work on country-specific issues,
- build international cooperation and promote and support TB nurses' networks within countries, and
- provide continuing educational opportunities for nurses from industrialized countries as well as from resource-poor countries.

Membership in the section is open to all members in good standing with the IUATLD but specifically encourages participation from nurses and other health allied health professionals involved in the control of TB

and other lung diseases. The section is actively recruiting membership from Africa, Europe, the Americas, and Asia.

The section actively participates in regional and international TB conferences hosted by the IUATLD. For the past 4 years, the section has put on a postgraduate course for nurses and allied professionals, offered symposia related to case management and training and education, hosted an international exhibition of training and educational materials, and contributed posters for display and formal discussion. The section currently has three active working groups: (1) training and education, (2) international contact tracing, and (3) TB medications. Members are invited to participate in the ongoing work of the working groups.

—Reported by Rose Pray, MS, RN
Division of TB Elimination

Tucson TB Nurse Goes to Kazakhstan

In April 1999, two faculty members of the College of Nursing from Almaty, Kazakhstan, spent 2 weeks in Tucson, Arizona, at Pima County Health Department's TB Clinic to observe outpatient treatment methods. They observed the clinic operation and how DOT is carried out both in a clinic and in the field.

In June, Chris Fox, RN, BSN, Manager of the Tucson TB Control Program, was sponsored by the Tucson/Almaty Medical Project (financed by the American International Health Alliance) to go to Almaty and provide training to the faculty of the College of Nursing in the principles of DOT, and how to manage TB care in an outpatient setting. The project necessitated using a translator the entire time (a retired anesthesiologist who translates only for

medical people). While there, Chris visited a TB hospital for adults and one for children.

Based on these two visits, she reports that care for TB patients in Kazakhstan is still hospital-based. In addition, surgery is a mainstay of treatment for these patients. The government of Kazakhstan supports the use of directly observed therapy (DOT), but currently is in the early stages of being introduced to the concept. However, the faculty were open to and accepting of new ideas and willing to include information about DOT to nursing students in their curriculum. Chris reports that it was gratifying to be able to share her TB expertise with other health care professionals and considers the Tucson / Almaty Medical Project to have been a positive and beneficial experience.

—Reported by Chris Fox, RN, BSN
Tucson TB Control Program

NEWS BRIEFS

Training in Prevention Effectiveness Methods for State and Local TB Prevention and Control Programs

During FY 2000, staff of the Prevention Effectiveness Section (PES), Research and Evaluation Branch, will be conducting a series of training courses for state and local TB program staff, which will focus on decision/economic analyses and behavioral/social research techniques. Based on the responses to a needs assessment distributed to state/big city TB programs in late spring, PES staff are now determining the most appropriate topics, formats, and venues for the courses. Please look for prevention effectiveness training announcements in future issues of *TB Notes* and in your mailbox!

The PES staff would like to extend a warm "thank you" to all who responded to the needs assessment, and a hearty "congratulations" to the winners of a copy of the book *Prevention Effectiveness: A Guide to Decision Analysis and Economic Evaluation*—Alex Bowler of Cheyenne, WY; Kathleen Gensheimer of Augusta, ME; John Grabau of Albany, NY; Sue Anne Jenkerson of Anchorage, AK; and Robert Stroube of Richmond, VA. If you would like more information about this training opportunity, please feel free to contact Drs. Noreen Qualls or Zachary Taylor at (404) 639-8123.

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Urine Test Strips for INH Metabolism

In 1998, Difco was taken over by Becton Dickinson (BD) and the Bacto test strips were discontinued. However, BD has begun to market them again as Taxo INH test strips (product number 4331743). They can be ordered through the usual distributors. For further information call (800) 675-0908. In addition, Dynagen has sold the rights to their INH test strip, Uritec, to Symco International; for information, call (619) 350-1015.

TRAINING AND EDUCATIONAL MATERIALS

TB Frontline

Satellite Primer Continued: Modules 6-9

This three-part satellite course is based on four new *Self-Study Modules on Tuberculosis* (6-9) that have been developed by DTBE. This course is designed for health care staff who work on the frontlines of TB control, including outreach workers, nurses, and supervisors. Topics to be covered include contact

investigation, patient adherence, surveillance and case management in hospitals and institutions, and confidentiality. The dates and times of the broadcasts are as follows:

January 27, February 3, and February 10, 2000

Eastern time: 1:00 p.m. - 3:00 p.m.

Central time: 12:00 p.m. - 2:00 p.m.

Mountain time: 11:00 a.m. - 1:00 p.m.

Pacific time: 10:00 a.m. - 12:00 p.m.

Participants must register by December 3, 1999. Participants who register and complete a pretest and posttest will be eligible to receive continuing education credits.

For additional information, contact the Francis J. Curry National TB Center at Tel: (415) 502-7904
E-mail: tbfrontline@nationaltbcenter.edu
Internet: www.nationaltbcenter.edu

This satellite course is a joint project of the Francis J. Curry National Tuberculosis Center; the Division of TB Elimination; the Charles P. Felton National Tuberculosis Center at Harlem Hospital; the New Jersey Medical School National Tuberculosis Center; and the Public Health Training Network.

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Information on School-Based TB Care

The New Jersey Medical School National TB Center successfully utilizes school nurses to administer directly observed therapy (DOT) and care to children with TB disease and infection. This process, which combines education, continuous quality improvement, and consistent program evaluation, increases medication adherence and overall treatment in a beneficial and cost-effective manner.

In 1995, the Center compared adherence rates of school-based DOT with clinic DOT for the same population. Adherence was 17% lower for school-based DOT. A needs assessment and cross-sectional study determined interventions, which included more specific education and training regarding adherence barriers. These interventions produced an adherence rate of 91% in the next year. The DOT program was expanded to satellite clinics and to TB-infected patients; similar favorable results were obtained. It was also discovered that school nurses are valuable in screening for TB in high-prevalence areas and appropriately assuming a liaison role with treating clinicians.

In order to disseminate information on school-based TB programs, the Center developed the "Guidelines for Initiating School-Based DOT" and the "Tuberculosis School Nurse Handbook." The Handbook gives clinical information on diagnosis and treatment of pediatric TB and includes solutions to common adherence barriers. The Guidelines give instructions for implementation and evaluation of school TB care programs and education of school nurses.

These documents have been widely requested by a nationwide audience of school nurses, health departments, TB program managers, and nurse consultants. The "Guidelines for Initiating School-Based DOT" and the "Tuberculosis School Nurse Handbook" are available as a reference set entitled "School-Based DOT: Everything You Need to Know." Each set combines the experiences of school-based TB care. For a free copy of the set or to receive individual copies of the Handbook, please contact Rajita Bhavaraju at (973) 972-4811 or by electronic mail at bhavarr@umdnj.edu. The documents may

also be downloaded and distributed from the NJMS National TB Center's Web site at <http://www.umdnj.edu/~ntbcweb/nurse/htm> for the "Tuberculosis School Nurse Handbook" or <http://www.umdnj.edu/~ntbcweb/guide/htm> for the "Guidelines for Initiating School-Based DOT."

—Reported by Rajita Bhavaraju
NJ Medical School National TB Center
Newark, NJ

NEW CDC PUBLICATIONS

Binkin NJ, Vernon AA, Simone PM, McCray E, Miller BI, Schieffelbein CW, Castro KG. Tuberculosis prevention and control activities in the United States: an overview of the organization of tuberculosis services. *Int J Tuberc Lung Dis* 1999;3(8):663-74.

Bock NN, Reeves M, LaMarre M, DeVoe B. Tuberculosis case detection in a state prison system. *Public Health Rep* 1998;113:359-64.

CDC. Primary multidrug-resistant tuberculosis - Ivanovo Oblast, Russia. *MMWR* 1999;48(30):661-64.

CDC. Progress toward the elimination of tuberculosis. *MMWR* 1999;48(33):732-36.

CDC. Tuberculosis elimination revisited: obstacles, opportunities, and a renewed commitment. Advisory Council for the Elimination of Tuberculosis (ACET). *MMWR* 1999;48(No. RR-9).

Kenyon TA, Driver C, Haas E, Valway SE, Moser KS, Onorato IM. Immigration and tuberculosis among children on the United States-Mexico border, County of San Diego, California. *Pediatrics* 104(1):e8, 1999 July (electronic journal).

Lobato MN, Cummings K, Will D, Royce S. Tuberculosis in children and adolescents: California, 1985 to 1995. *Ped Inf Dis* 1998;17:407-12.

Vernon A, Burman W, Benator D, Khan A, Bozeman L. Acquired rifamycin monoresistance in patients with HIV-related tuberculosis treated with once-weekly rifapentine and isoniazid. *The Lancet* 1999;353:1843-48.

PERSONNEL NOTES

Gus Aquino and Chris Caudill were selected for 3-month temporary duty assignments in Russia beginning September 19. They are working with officials and staff of the Russia Central TB Research Institute, the World Health Organization, local TB services, USAID, and CDC to provide technical and management assistance for implementation of the CDC/USAID/WHO directly observed treatment short-course (DOTS) projects. Chris (who is with the Chicago TB control program), Gus (with the Puerto Rico TB control program), and Mack Anders arrived in Moscow on September 19. Following a week of orientation at the American Embassy, they went to their duty stations, Chris to Ivanovo Oblast and Gus to Orel Oblast, where they are taking up residence and working for the duration of their assignments in Russia. In this important and exciting international public health mission, Chris and Gus will not only share their public health and TB program knowledge with our collaborators but will also represent CDC and the United States in Russia, fully aware of all the diplomatic and political responsibilities this entails.

Lauri Bazerman, MS, has started an Association of Schools of Public Health (ASPH) fellowship in TB program

evaluation with the Field Services Branch of DTBE. She is working primarily on the project, "Evaluation of the CDC Recommendations for the Prevention and Control of Tuberculosis in Jails." Lauri comes to CDC after completing the program for a master of science degree in health and social behavior at the Harvard School of Public Health this past June. Prior to that, she spent more than 2 years working at the New York City Department of Health's Bureau of Tuberculosis Control as a Public Health Advisor (PHA) in their Epidemiology Unit. In her role as a PHA, Lauri conducted field investigations to monitor TB outbreaks and collaborated on various epidemiologic studies. She also has experience working in the NYC Office of AIDS Research with "Bridge to Respect," an HIV prevention program. Lauri has rapidly integrated herself into the evaluation project, including participating in the September 8 Advisory Board meeting. On October 4-5, she will be at the Chicago conference of the jurisdictions with the 25 largest city and county jails, building support for the project. Welcome, Lauri!

Gabrielle Benenson, MPH, has accepted a 2-year Association of Schools of Public Health (ASPH) fellowship with the Communications and Education Branch. She has been actively and productively pursuing her interest in health education and communication throughout her undergraduate and graduate academic careers. She received a bachelor of science degree in health sciences, with a minor in public health, from James Madison University, Harrisonburg, VA, in 1997, and received an MPH in health behavior and health education in May 1999 from the University of Michigan School of Public Health. Through her formal training and her completion of a 1998 internship at the Texas Center for Infectious Disease, she

has accumulated a very impressive array of skills, abilities, and experiences related to health education and communication. She began her fellowship on September 1. An additional note of interest about Gabrielle is that her grandfather is Abram S. Benenson, MD, who recently retired as the long-time editor of the book, *Control of Communicable Diseases Manual*, a publication that is updated and reissued every 4 years and is considered indispensable by epidemiologists. Welcome, Gabrielle!

Michael Iademarco, MD, MPH, received an honor from the St. Louis University School of Public Health, from which he received his MPH. Michael was inducted into the Delta Omega Honorary Society, which is a society for outstanding academic performance. The award was presented by the Alpha Delta chapter of the society, which is the St. Louis University chapter. The honor was granted on May 14. Congratulations, Michael!

Kayla Laserson, ScD, was the recipient of the 5th Annual Paul C. Schnitker International Health Award for her study of multidrug-resistant tuberculosis (MDR TB) in Colombia and Russia. In this study, her work included consultations with the World Health Organization on MDR TB and with the Food and Drug Administration on TB drug quality testing. In addition, Kayla conducted an assessment for the risk of TB among health care workers in Brazil, as well as an assessment of TB screening of refugees in Viet Nam. Congratulations, Kayla!

Philip LoBue, MD, has been selected for the position of FSB medical officer assigned to the San Diego County TB program working under Dr. Kathy Moser. He will provide epidemiological, medical,

and programmatic consultation to the County of San Diego Tuberculosis Control Program. He attended the University of Pennsylvania for both undergraduate work and medical school. He completed his internship, residency, and clinical fellowship in pulmonary and critical care medicine at the University of California at San Diego (UCSD) Medical Center. He is board certified in internal medicine, pulmonary medicine, and critical care medicine. In addition to inpatient and outpatient duties, he worked as a clinical instructor of medicine for 2 years and participated in the design, conduct, analysis, and presentation of clinical TB research. Most recently, he served as assistant clinical professor of medicine at UCSD and a special consultant for TB control at the San Diego County Department of Health Services. He conducted clinical TB research, acted as associate TB control officer for UCSD Medical Center and medical director of the UCSD outpatient chest clinic, managed inpatients with TB at UCSD, and provided medical care to patients in the county health department TB clinic. He acted as a liaison between UCSD Medical Center and the local health department. He was a principal investigator in CDC's evaluation of the QuantiFeron Test for TB Infection and a coinvestigator for USPHS Study 22: Efficacy and Safety of Once-Weekly Rifapentine and Isoniazid Compared to Twice-Weekly Rifampin and Isoniazid in the Continuation Phase of Therapy for Pulmonary TB. Philip began his assignment in San Diego on August 29, 1999. Welcome, Philip!

Jason Nehal has been selected for the PHA position in Chicago, Illinois. He will be working on one of two teams responsible for all levels of TB control for half of the city of Chicago, including program planning and management as well as program

operations. Jason began his career with CDC in 1991 in the Chicago STD program. In September 1992 Jason assumed additional responsibilities as part of the "reactor team" which focused on rapid-response field investigation techniques to reduce the time from positive report to patient interview. Jason also spent 8 weeks on a temporary duty assignment in Gary, Indiana. In September 1993 Jason was reassigned to northeast Ohio. He is currently the surveillance coordinator for a five-county area maintaining contact with providers of medical and lab services in those counties. Jason is working to complete the Graduate Certificate Program at Tulane University in New Orleans, with emphasis in biostatistics and epidemiology. He will start his new assignment on October 10, 1999. Welcome to DTBE, Jason!

Cristy Nguyen, MPH, has completed her 2-year ASPH fellowship and will be leaving DTBE. Cristy has worked in the Prevention Effectiveness Section of the Research and Evaluation Branch and completed studies of the cost-effectiveness of screening and treating HIV-infected persons and B1/B2 immigrants for latent TB infection. She will be missed and we wish her good fortune in the future.

Maureen O'Rourke-Tilton has been selected for the PHA position in Trenton, New Jersey. She will function as an assistant to the senior public health advisor, Ken Shilkret, and state public health officials. Maureen began her career with the CDC in Columbia, South Carolina, in the STD program. Before that, she was a state disease intervention specialist (DIS) for a year and a half in Hillsborough and Manatee Counties in Florida. As a state and federal DIS, Maureen was trained and educated in the fundamentals of public

health delivery and epidemiology. In 1995, Maureen was reassigned to Dallas, Texas, where she worked more independently and continued to develop her skills and abilities. She planned, coordinated, and implemented special screening activities at homeless shelters, detention centers, and other special target populations. She also presented educational and training programs. Maureen will start her new assignment on October 24. Welcome to DTBE, Maureen!

Ejo Roy, who was a program operations assistant in Field Operations Section I, Field Services Branch (FSB), for the past 2 years, has accepted a position with CDC's Division of Violence Prevention, National Center for Injury Prevention and Control. Her last day was August 23. Among her responsibilities, she worked with and assisted the FSB Program Consultants and was also responsible for distributing the Tuesday Morning Reports. Ejo's hard work, ready smile, and helpful attitude will be missed.

Jeffrey Sheppard, PhD, a microbiologist in the TB/Mycobacteriology Branch of the Division of AIDS, STD, and TB Laboratory, NCID, was the corecipient of the Donald C. Mackel Award this spring with Kayla Laserson of DTBE. Jeff was the laboratorian responsible for the molecular typing of the isolates and the coordination of all other lab activities associated with the study. The entire laboratory was involved in the investigation and thus share in this honor for their substantive part in the investigation. We included Kayla's receipt of this award in the last issue of *TB Notes*, but neglected to mention the equal recognition given to Kayla's collaborators in NCID. The Mackel Award encourages research collaborations between epidemiologists and laboratory scientists by

recognizing the effective application of this approach. Winners are chosen on the quality and integration of both the epidemiologic and laboratory science components of their investigation.

Eric Williamson has been selected for the PHA position in Jefferson City, Missouri. He will function as an assistant to the senior public health advisor, Vic Tomlinson, and state public health officials. Eric began his career with CDC in 1991 in the STD program as an assignee to the Chicago Training Center where he was entrusted with progressively responsible positions. In December 1992, he transferred to Memphis, Tennessee, where he assumed responsibility for the "reactor desk," through which he monitored reactive serologies from numerous hospitals, blood banks, and private providers. He also participated in community outreach for those living with HIV. In June 1997, he accepted reassignment to the State of Wisconsin. Serving as an assistant to the senior public health advisor, he was the initial point of contact for 65 counties and provided technical assistance in the field such as assistance with investigations and provision of training. Eric started his new assignment with Missouri on August 16, 1999. Welcome aboard, Eric!

CALENDAR OF EVENTS

September 30, 1999

TB in HIV-Infected Patients

Newark, New Jersey

NJ Medical School National TB Center

Debra Kantor

Tel: (973) 972-3273

October 6-7, 1999

Meeting of the Advisory Council for the Elimination of TB

Atlanta, Georgia

CDC

Tel: (404) 639-8158

October 7-8, 1999

TB Outreach Worker's Course

San Francisco, California

Training Coordinator

Francis J. Curry National TB Center

Tel: (415) 502-4600

October 18-20, 1999

TB Program Manager's Course

Newark, New Jersey

NJ Medical School National TB Center

Rajita Bhavaraju

Tel: (973) 972-4811

October 18-22, 1999

Postgraduate Course on Clinical

Management and Control of TB

Denver, Colorado

National Jewish Medical and Research Center

Catheryne J. Queen

Tel: (303) 398-1700 / Fax: (303) 398-1806

October 20-22, 1999

TB Intensive Course

San Francisco, California

Training Coordinator

Francis J. Curry National TB Center

Tel: (415) 502-4600

October 21, 1999

Abstracts deadline for ALA/ATS 2000 (May 2000), Toronto

96th International Conference of the American Thoracic Society

Abstract forms available online at

<http://www.thoracic.org/ic2000/abstractforms/html>

November 5, 1999

Use of Surveillance Data to Guide and Evaluate TB Control Programs

San Francisco, California

Training Coordinator

Francis J. Curry National TB Center

Tel: (415) 502-4600

November 7-11, 1999

127th Annual Meeting of the APHA:

"Celebrating a Century of Progress in Public Health."

Chicago, Illinois

Carroll Lewis

American Public Health Association

Tel: (202) 777-2478

E-mail: carroll.lewis@apha.org

November 15-17, 1999

Effective TB Interviewing and Contact Investigation

Newark, New Jersey

NJ Medical School National TB Center

Rajita Bhavaraju

Tel: (973) 972-4811

November 17, 1999

TB Update II: Medical Management of New TB Medications

Newark, New Jersey

NJ Medical School National TB Center

Rajita Bhavaraju

Tel: (973) 972-4811

December 6, 1999

TB Update Course

San Francisco, California

Training Coordinator

Francis J. Curry National TB Center

Tel: (415) 502-4600

December 15, 1999

TB Skin-Testing Workshop

San Francisco, California

Training Coordinator

Francis J. Curry National TB Center

Tel: (415) 502-4600

January 31-February 4, 2000

Postgraduate Course on Clinical

Management and Control of TB

Denver, Colorado

National Jewish Medical and Research
Center

Catheryne J. Queen

Tel: (303) 398-1700 / Fax: (303) 398-1906

April 24-28, 2000

Postgraduate Course on Clinical

Management and Control of TB

Denver, Colorado

National Jewish Medical and Research
Center

Catheryne J. Queen

Tel: (303) 398-1700 / Fax: (303) 398-1906

May 5-10, 2000

2000 ALA/ATS International Conference

Toronto, Ontario, CANADA

American Thoracic Society

Tel: (212) 315-8780

Deadline for abstracts: Oct. 21, 1999

August 30-September 1, 2000

National TB Controllers' Workshop

Atlanta, Georgia

John Seggerson

(404) 639-8120
